

### Scientific Abstract

This phase I trial will examine intratumoral injection of a recombinant canarypox virus encoding the human interleukin-12 gene (ALVAC-hIL-12) in patients with surgically incurable melanoma. The basis for this study is the hypothesis that the local production of IL-12 in melanoma nodules can alter the tumor nodule environment by enhancement of immune effector cell functions, induction of gamma interferon and production of a more effective anti-tumor immune response by expansion of a T-helper type 1 (Th1) response. We have chosen intratumor injection because the ALVAC vector can induce a local lymphokine effect with minimal systemic effects and a schedule of repeat administration to the same tumor site so that an extended period of IL-12 exposure is feasible given ALVAC lymphokine production durations of 3-4 days *in vivo*. This initial phase I study will emphasize safety, confirmation of IL-12 and other immunomodulatory molecule presence at the local site as well as local cellular and antitumor effects. The outcome of the study should be a dose/schedule of ALVAC-hIL-12 which is safe and provides a characterized local effect in a melanoma tumor nodule for subsequent phase II trials which have induction of systemic melanoma immunity and antitumor effects as end points of the study.